DETAILED ACTION

1.   This Office Action is in response to an AMENDMENT entered January 18, 2012

for the patent application 10/579214 filed on May 12, 2006.

2.   The Office Actions of October 6, 2009, February 25, 2010 and October 18, 2011

are fully incorporated into this Final Office Action by reference.

Status of Claims

3.   Claims 1-4, 6-10, 12 and 15-16 are pending in this application.

Claim Rejections - 35 USC § 101

       35 U.S.C. 101 reads as follows:

       Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
       matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
       conditions and requirements of this title.

4.   Claim 1 <u>as amended</u> is rejected under 35 U.S.C. 101 because functional

descriptive material, per se, is not statutory. Although the word "system" is recited, the

claim appears to be directed as a whole to a program (i.e. "nontransitory logic to" is

interpreted to be software logic). It is not an apparatus, process, article of manufacture

nor composition of matter. The accepted definition of a system is "an organization of

hardware and software, often together with personnel, that function together as a unit".

5.   Claims 10 and 15 <u>as amended</u> are rejected under 35 U.S.C. 101 because

functional descriptive material, per se, is not statutory. Although the word "set top box"

is recited, the claims appear to be directed as a whole to a program (i.e. "nontransitory

logic to" is interpreted to be software logic). It is not an apparatus, process, article of

manufacture nor composition of matter. Claims 10 and 15 <u>as amended</u> embrace or

overlap two different statutory classes of invention as described in MPEP 2173.05(p)

(II). These claims <u>as amended</u> also invoke a 35 USC § 112 Second Paragraph

Rejection for indefiniteness.

35 USC § 112 Sixth Paragraph Analysis

6.   Claim element "logic to" is a limitation that invokes 35 U.S.C. 112, sixth

paragraph. However, the written description fails to disclose the corresponding

structure, material, or acts for the claimed function. Applicant's specification ¶ 0020

provides for a "set top box" with logic which "refers to software (e.g. program

instructions) and/or hardware (e.g. circuitry) to carry out processing in a device, such as

a computing device, routing/switching device, communication device, or data

processing device." However, there is no algorithm in the Applicant's specification to

compose, communicate, deliver, tune, read, apply, and display. This invokes a 35 USC

§ 112 Second Paragraph Rejection for indefiniteness.

Applicant may:

(a)   Amend the claim so that the claim limitation will no longer be interpreted as a limitation under 35 U.S.C. 112, sixth paragraph; or

(b)   Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant should clarify the record by either:

(a)   Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b)   Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Claim Rejections - 35 USC § 112

7.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

8.   Claims 1, 4, 8-10, 12 and 15-16 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

Claims 1, 4 and 8-9 are vague because they are directed to a system claim that

only comprises of software elements (logic) and do not comprise of structural elements.

In other words, it is not clear if claim 1 is directed to structural claim or a software claim.

Claims 10, 12 and 15-16 are vague because they are directed to an apparatus

claim (set top box) that only comprises of software elements (logic) and do not comprise

of structural elements. In other words, it is not clear if claims 10 and 15 are directed to

structural claim or a software claim.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 1-4, 6-8, 10 and 12 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hendricks et al. (U.S. Patent 5,600,364, referred to as **Hendricks**) in

view of Burroughs et al. (U.S. PGPub 2002/0144284 A1, referred to as **Burroughs**).

Examiner's Note (EN): **Hendricks** and **Burroughs** apply with the specific sections

identified as follows. Paragraph 20. below applies.

Claim 1

Hendricks teaches:

> A content on demand system comprising:

> nontransitory logic to compose information about multiple audio and/or video
>> streams into an audio and/or video stream format (**Hendricks** Fig. 14, el.
>> 396; Abstract, C15:22-40; EN: There are hundreds of channels of
>> programming are managed in the system); and

> nontransitory logic to communicate the information about multiple audio and/or
>> video streams to a plurality of set top boxes (**Hendricks** Fig. 4-7; Abstract,
>> C15:22-40; EN: Multiple set top boxes are managed in the system); and

Hendricks does not explicitly disclose:

> nontransitory logic to deliver in parallel a valid version of the information about
>> multiple audio and/or video streams on a first tunable channel and an
>> obsolete version of the information on a second tunable channel.

Burroughs teaches:

nontransitory logic to deliver in parallel a valid version of the information about

multiple audio and/or video streams on a first tunable channel and an

obsolete version of the information on a second tunable channel

(**Burroughs** ¶¶ 0032; EN: Determines that the primary downstream

channel is not valid. Examiner interprets that the message can be

substituted with the menu information and that the tuner would seek valid

information on the alternate channel).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teachings of **Hendricks** with the switching

channels when invalid data is found as taught by **Burroughs** for the purpose of

providing valid data in a timely manner.

Claim 2

Hendricks teaches:

wherein the information about multiple audio and/or video streams further

comprises information about content categories (**Hendricks** C8:54-C9:8;

EN: Information includes the date, time slot, and program category of the

various programs).

Claim 3

Hendricks teaches:

wherein the information about multiple audio and/or video streams further

comprises information about audio and/or video titles (**Hendricks** Fig. 8b,

el. 1052; C24:3-10; EN: Cable headend 208 may change the program

selections available on any menu by modifying the program control

information signal sent by the operations center 202 and transmitting the

change).

Claim 4

Hendricks teaches:

nontransitory logic to compose an index of audio and/or video information into

the audio and/or video stream format (**Hendricks** C8:54-C9:8, C12:7-50;

EN: Information includes the date, time slot, and program category of the

various programs).

Claim 6

Hendricks teaches:

wherein the information about multiple audio and/or video streams further

comprises: information about content categories (**Hendricks** C8:54-C9:8;

EN: Although the delivery logistics are different from direct set top delivery

of menu information, the information will remain the same regarding the

programming).

Claim 7

Hendricks teaches:

wherein the information about multiple audio and/or video streams further

comprises information about audio and/or video titles (**Hendricks** C8:54-

C9:8; EN: Although the delivery logistics are different from direct set top

delivery of menu information, the information will remain the same

regarding the programming).

Claim 8

Hendricks does not explicitly disclose:

nontransitory logic to alternatively deliver the index of audio and/or video

information on a first tunable channel and on a second tunable channel.

Burroughs teaches:

nontransitory logic to alternatively deliver the index of audio and/or video

information on a first tunable channel and on a second tunable channel

(**Burroughs** ¶¶ 0032; EN: Determines that the primary downstream

channel is not valid. Examiner interprets that the message can be

substituted with the menu information and that the tuner would seek valid

information on the alternate channel).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teachings of **Hendricks** with the switching

channels when invalid data is found as taught by **Burroughs** for the purpose of

providing valid data in a timely manner.

Claim 10

A set top box comprising:

nontransitory logic to tune to a channel comprising an index of audio and/or video

information having a format of audio and/or video streams (**Hendricks**

C8:3-24, C16:10-24; EN: Subscriber tunes to a video. Examiner interprets

that the channel includes menu information),

nontransitory to read the index (**Hendricks** C8:3-24, C16:10-24; EN: Subscriber

tunes to a video. Examiner interprets that the channel includes menu

information), and

nontransitory to apply the index to identify one or more channels comprising

information describing audio and/or video content (**Hendricks** C12:7-50;

EN: Menus created); and

nontransitory logic to read information from the channel comprising an index of

audio and/or video information (**Hendricks** C8:3-24, C16:10-24; EN:

Subscriber tunes to a video. Examiner interprets that the channel includes

menu information);

Hendricks does not explicitly disclose:

nontransitory logic to read information from the channel comprising an index of

audio and/or video information;

when the channel contains an indication of obsolete information, to tune to an

alternate simultaneously streaming channel comprising the index in the

format of audio and/or video streams, and to read the index from the

alternate channel.

Burroughs teaches:

nontransitory logic to read information from the channel comprising an index of

audio and/or video information (**Burroughs** ¶¶ 0032; EN: Determines that

the primary downstream channel is not valid. Examiner interprets that the message can be substituted with the menu information and that the tuner would seek valid information on the alternate channel) and,

when the channel contains an indication of obsolete information, to tune to an alternate simultaneously streaming channel comprising the index in the format of audio and/or video streams, and to read the index from the alternate channel (**Burroughs** ¶¶ 0032; EN: Determines that the primary downstream channel is not valid. Examiner interprets that the message can be substituted with the menu information and that the tuner would seek valid information on the alternate channel).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Hendricks** with the switching channels when invalid data is found as taught by **Burroughs** for the purpose of providing valid data in a timely manner.

Claim 12

Hendricks teaches:

nontransitory logic to tune to a channel comprising information about at least one audio and/or video stream (**Hendricks** C8:3-24, C16:10-24; EN: Subscriber tunes to a video. Examiner interprets that the channel includes menu information),

nontransitory the information about at least one audio and/or video stream

formatted as an audio and/or video stream (**Hendricks** Fig. 14, el. 396;

Abstract; EN: Program control information signal that carries data and

identifies available program choices,

nontransitory read the information about the at least one audio and/or video

stream (**Hendricks** C8:3-24, C16:10-24; EN: Subscriber tunes to a video.

Examiner interprets that the channel includes menu information), and

nontransitory display the information about the at least one audio and/or video

stream (**Hendricks** C8:3-24, C16:10-24; EN: Subscriber tunes to a video.

Examiner interprets that the channel includes menu information).

Claim Rejections - 35 USC § 103

11.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Hendricks in view of **Burroughs** in further view of Ellis et al. (U.S. Patent

2004/0117831 A1, referred to as **Ellis**). Examiner's Note (EN): **Hendricks** and

Burroughs and **Ellis** apply with the specific sections identified as follows. Paragraph

20. below applies.

<u>Claim 9</u>

Hendricks in view of **Burroughs** does not explicitly disclose:

nontransitory logic to receive from a set top box a request for an audio and/or

video stream, the request comprising an identifier of a title of the audio

and/or video stream.

Ellis teaches:

> nontransitory logic to receive from a set top box a request for an audio and/or
>
>> video stream, the request comprising an identifier of a title of the audio
>>
>> and/or video stream (**Ellis** ¶ 0101, 200 EN: Program guide includes an
>>
>> identifier of the title associated with the program along with other
>>
>> information associated with that program).

Rationale:

> It would have been obvious to one of ordinary skill in the art at the time the
>
> invention was made to modify the teachings of **Hendricks** in view of **Burroughs**
>
> with the request for the stream and the identifier by title as taught by **Ellis** for the
>
> purpose of providing information from the menu being sent to the headend or
>
> server for the program request.

Claim Rejections - 35 USC § 103

12.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Hendricks in view of Jerding et al. (U.S. PGPub 2006/0271973 A1, referred to as

Jerding). Examiner's Note (EN): **Hendricks** and **Jerding** apply with the specific

sections identified as follows. Paragraph 20. below applies.

Hendricks teaches:

> nontransitory logic to locate in a content index a channel comprising audio and/or
>
>> video title information (**Hendricks** C18:60-C19:7), and
>
> nontransitory logic to tune to the channel comprising the audio and/or video title
>
>> information (**Hendricks** C18:60-C19:7), and

nontransitory logic to locate the audio and/or video title information in the channel

comprising the audio and/or video title information (**Hendricks** C18:60-

C19:7),

Hendricks fails to teach:

nontransitory logic to apply the audio and/or video title information and a service

group identifier for the set top box obtained from a configuration

information channel in a request communicated to an on-demand server

system.

Jerding teaches:

nontransitory logic to apply the audio and/or video title information and a service

group identifier for the set top box obtained from a configuration

information channel in a request communicated to an on-demand server

system (**Jerding** ¶¶ 0039, 0056, 0061; EN: Request by title submitted.

Tags may be used by the receiver to determine the use of each of the

streams. MPEG-2 stream transmitted to service group which identifies a

particular DHCT).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teachings of **Hendricks** with the title and

service group identifier as taught by **Jerding** for the purpose of providing video

on demand services through a QAM modulator which provides encrypting the

Claim Rejections - 35 USC § 103

13.   Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Hendricks in view of **Jerding** in further view of **Burroughs**. Examiner's Note (EN):

Hendricks and **Jerding** and **Burroughs** apply with the specific sections identified as

follows. Paragraph 20. below applies.

Claim 16

Hendricks in view of **Jerding** fails to teach:

> nontransitory logic to locate an alternate channel comprising audio and/or video
>
>> title information. and to tune to the alternate channel comprising the audio
>>
>> and/or video title information when the channel comprising the audio
>>
>> and/or video title information comprises an indication of invalid data.

Burroughs teaches:

> nontransitory logic to locate an alternate channel comprising audio and/or video
>
>> title information. and to tune to the alternate channel comprising the audio
>>
>> and/or video title information when the channel comprising the audio
>>
>> and/or video title information comprises an indication of invalid data
>>
>> (**Burroughs** ¶¶ 0032; EN: Determines that the primary downstream
>>
>> channel is not valid. Examiner interprets that the message can be
>>
>> substituted with the menu information and that the tuner would seek valid
>>
>> information on the alternate channel).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the teachings of **Hendricks** in view of **Jerding**

with the switching channels when invalid data is found as taught by **Burroughs**

for the purpose of providing valid data in a timely manner without a network

resource delay.

Response to Arguments

14.   The rejection of claims 1, 4, 8-10, 12 and 15-16 under 35 U.S.C. 112 second

paragraph in view of under 35 U.S.C. 112 sixth paragraph is not withdrawn (claims 13-

14 were cancelled by the Applicant).

In reference to Applicant's argument:

> The Examiner asserts the term "logic" is indefinite for lack of
> corresponding structure. The Specification describes both a system and a set top
> box comprising logic (software and/or hardware) configured to carry out the
> claimed procedures, said procedures being described in detail in conjunction with
> the Drawings (e.g., Figures 7-9). This is sufficiently definite to enable one of skill
> ill the art to understand both the scope of the invention, and how to make and
> use it. It is well understood in the art how to configure a device with logic to
> perform various actions such as formatting (composing), reading, displaying,
> communicating, delivering, applying, etc. data. These are not actions which
> require the recitation of a specific algorithm to be enabled to one of ordinary skill,
> and doing so would unnecessarily clutter the Description. . It is well understood in
> the art which logic (controllers, volatile and nonvolatile memories, communication
> chips, ASICs, etc.) could be utilized for the claimed purposes, and the
> mechanisms for configuring said logic for the claimed purposes are also well
> known (e.g., integrated development environments, logic burners, etc.)

Examiner's Response:

Applicant's arguments have been fully considered but they are not persuasive.

"Logic" with the functions described in the claims is not defined sufficiently in the

specification to be circuitry <u>or</u> hardware. Applicant's argument did not provide any

<u>corresponding structure</u> as required to overcome the 35 U.S.C. 112 second paragraph

rejection in view of 35 U.S.C. 112 sixth paragraph. Instead, applicant only responded

with general functions applied to a set top box and general structural elements.

Applicant is referred to MPEP 2164.08(a) where for a single means claim (like claims 1,

10 and 15), although "means" is not recited in the claim, the claim is directed to a single

structural element that performs several functions (system "comprising", set top box

"comprising"). Per *In re Hyatt*, "The invention defined is what follows the word

'comprising.'... The long-recognized problem with a single means claim is that it covers

every conceivable means for achieving the stated result, while the specification

discloses at most only those means known to the inventor."

The addition of the word "nontransitory" does not overcome the 35 U.S.C. 112

second paragraph rejection, but re-enforces the interpretation of the function being

"software" instead of hardware. "Nontransitory logic" is interpreted to imply software

instructions on a computer readable medium when read in light of the Applicant's

specification.

To further prosecution, the following is suggested:

- Claims 1, 4 and 8-9, remove the "nontransitory" and "logic to" terms and

  change the preamble to read "<u>method in</u> a content on demand system".

- Claims 10, 12 and 15-16, remove the "nontransitory" and "logic to" terms

  and change the preamble to read "<u>method in</u> a set top box".

15.   In reference to Applicant's argument:

> Claims 1-4, 6-10 and 12-14, Hendricks in view of Amano does not
> obviously suggest alternate parallel streams of program metadata, one stream
> being obsolete metadata and the other valid metadata.

Examiner's Response:

Applicant's arguments with respect to claim 1-4, 6-10 and 12 have been

considered but are moot in view of the new ground(s) of rejection.

16.   In reference to Applicant's argument:

> Claims 15-16, content request to include an identifier of the title of the
> content and the membership to be part of a group of subscribers is not a
> reasonable or accurate definition of a service group identifier, which is an
> identifier of one or more Quad Amplitude Modulator (QAM) devices that service
> the set top box.

Examiner's Response:

Applicant's arguments with respect to claims 15-16 have been considered but are

moot in view of the new ground(s) of rejection.

Examination Considerations

17.   The claims and only the claims form the metes and bounds of the invention.

"Office personnel are to give the claims their broadest reasonable interpretation in light

of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023,

1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the

claim should not be read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162

USPQ 541, 550-551 (CCPA 1969) (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4).

The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Examiner will reference prior art using terminology familiar to one of ordinary skill in the

art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

18.   Examiner's Notes are provided with the cited references to prior art to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

19.   Unless otherwise annotated, Examiner's statements are to be interpreted in reference to that of one of ordinary skill in the art. Statements made in reference to the condition of the disclosure constitute, on the face of it, the basis and such would be obvious to one of ordinary skill in the art, establishing thereby an inherent prima facie statement.

20.   Examiner's Opinion: ¶¶ 17.-19. apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

21.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Correspondence Information

22.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to MARY ANNE KAY whose telephone number is

(571)270-5677, FAX (571)270-6677, e-mail mary.kay@uspto.gov. The Examiner can

normally be reached on Monday -Thursday and every other Friday, 8:00 AM - 5:00 PM,

EST.

As detailed in MPEP 502.03, communications via Internet e-mail are at the

discretion of the Applicant. Without a written authorization by Applicant recorded in the

Applicant's file, the USPTO will not respond via e-mail to any Internet correspondence

which contains information subject to the confidentiality requirement as set forth in 35

U.S.C. 122. A paper copy of such correspondence will be placed in the appropriate

patent application. The following is an example authorization which may be used by the

Applicant:

> Notwithstanding the lack of security with Internet Communications, I hereby authorize the USPTO to communicate with me concerning any subject matter related to the instant application by e-mail. I understand that a copy of such communications related to formal submissions will be made of record in the applications file.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's

supervisor, Joseph Hirl can be reached on (571)272-3685. Any response to this office

action should be mailed to:

> Commissioner of Patents and Trademarks,
>
> Washington, D. C. 20231;

Hand delivered to:

> Receptionist,
>
> Customer Service Window,
>
> Randolph Building,
>
> 401 Dulany Street,
>
> Alexandria, Virginia 22313,
>
> (located on the first floor of the south side of the Randolph Building);

or faxed to:

> (571)273-8300 (for formal communications intended for entry).

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Business Center (EBC) at 866-217-9197 (toll-free).

Mary Anne Kay
Examiner

/JOSEPH P. HIRL/
Supervisory Patent Examiner, Art Unit 2426
February 13, 2012